

Comparisons of Job Characteristics

Focus Occupation: [Engineers, All Other \(17-2199\)](#)

Associated Occupation: [Aerospace Engineering and Operations Technicians \(17-3021\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 83

Focus Occupation: Engineers, All Other (17-2199)

Associated Occupation: Aerospace Engineering and Operations Technicians (17-3021)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Engineering and Technology	5.7	23.6	20.1	<< Extensive education and/or training may be required
Computers and Electronics	8.4	17.3	15.0	< Expanded education and/or training may be required
Mechanical	6.8	17.3	14.0	<< Extensive education and/or training may be required
Production and Processing	6.0	13.2	12.9	0 Current knowledge level may be sufficient
Public Safety and Security	6.9	13.2	7.9	<< Extensive education and/or training may be required
Design	5.2	12.2	16.5	>> Current knowledge level is likely more than sufficient
Law and Government	5.9	10.7	6.4	<< Extensive education and/or training may be required
Physics	4.3	9.7	14.8	>> Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 66

Focus Occupation: Engineers, All Other (17-2199)

Associated Occupation: Aerospace Engineering and Operations Technicians (17-3021)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Quality Control Analysis	5.9	11.1	9.7	< A higher skill level may be required
Operation Monitoring	6.6	11.0	10.1	0 Current skill level may be sufficient
Science	4.5	9.7	11.4	> Skill level is likely sufficient

Troubleshooting	4.5	9.2	7.8	<	A higher skill level may be required
Equipment Maintenance	3.5	8.9	4.6	<<	Extensive development of skills in this area may be required
Repairing	3.4	7.2	4.7	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	6.1	6.3	0	Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 95

Focus Occupation: Engineers, All Other (17-2199)

Associated Occupation: Aerospace Engineering and Operations Technicians (17-3021)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Problem Sensitivity	11.1	13.6	14.0	0	Current ability level may be sufficient
Information Ordering	9.9	11.6	13.2	>	Current ability level is likely sufficient
Visualization	7.5	10.1	11.7	>	Current ability level is likely sufficient
Flexibility of Closure	7.8	9.6	9.9	0	Current ability level may be sufficient
Visual Color Discrimination	6.4	8.7	8.6	0	Current ability level may be sufficient
Hearing Sensitivity	5.6	8.1	6.7	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

There are no common work activities.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 67

Focus Occupation: Engineers, All Other (17-2199)

Associated Occupation: Aerospace Engineering and Operations Technicians (17-3021)

Tools and Technologies	Exclusivity
Business function specific software	1
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Electrical measuring and testing equipment	7
Indicating and recording instruments	2
Industry specific software	1
Laboratory ovens and accessories	15
Length and thickness and distance measuring instruments	2
Light and wave generating and measuring equipment	4
Liquid and gas flow measuring and observing instruments	15
Machine tools	7

Machinery for working wood and stone and ceramic and the like	12
Metals and metallurgy and structural materials testing instruments	15
Non destructive examination equipment	13
Power tools	2
Soldering and brazing and welding machinery and supplies	6
Spectroscopic equipment	10
Temperature and heat measuring instruments	6
Viewing and observing instruments and accessories	4

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.